# **WEST Search History**

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DATE: Wednesday, February 28, 2007

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	DB=PGI	PB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES	S; OP=ADJ
Γ	L8	thermophilum and L4	7
Γ	L7	Chaetomium and L4	. 9
Γ	L6	thermophilum same L4	0
Γ	L5 ·	Chaetomium same L4	0
Γ	L4	(mutant or variant) same L3	27
<u> </u>	L3	(clone or recombinant or express\$5) same L2	258
Γ.	L2	(gene or sequence or polynucleotide) same L1	369
Γ	L1	Cellobiohydrolase	860

END OF SEARCH HISTORY

=> index bioscience medicine

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 17:33:27 ON 28 FEB 2007

#### 71 FILES IN THE FILE LIST IN STNINDEX

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=> S cellobiohydrolase###
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- 310 FILE AGRICOLA
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- 6 FILE ANTE
- 2 FILE AQUALINE
- 12 FILE AQUASCI
- 318 FILE BIOENG
- 919 FILE BIOSIS
- 1131 FILE BIOTECHABS
- 1131 FILE BIOTECHDS
- 393 FILE BIOTECHNO
- 273 FILE CABA
- 1378 FILE CAPLUS
- 160 FILE CEABA-VTB
- 3 FILE CIN
- 20 FILE CONFSCI
- 3 FILE CROPU
- 15 FILE DDFU
- 1239 FILE DGENE
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  - 2 FILE OCEAN
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  - 1 FILE RDISCLOSURE
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  - 2 FILE IPA 7 FILE NLDB
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- L1 QUE CELLOBIOHYDROLASE###
- => d rank
- FI 1378 CAPLUS

- F2 1239 DGENE
- F3 1131 BIOTECHABS
- F4 1131 BIOTECHDS
- F5 1126 SCISEARCH
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FILE 'CAPLUS' ENTERED AT 17:35:57 ON 28 FEB 2007
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=> S L1

L2 7559 L1

=> S (gene or sequence or polynucleotide)(s)L2

10 FILES SEARCHED...

L3 1619 (GENE OR SEQUENCE OR POLYNUCLEOTIDE)(S) L2

=> S (clone or recombinant or express?)(s) L3

10 FILES SEARCHED...

A 847 (CLONE OR RECOMBINANT OR EXPRESS?)(S) L3

=> S (mutant or variant)(s) L4

L5 56 (MUTANT OR VARIANT)(S) L4

=> S Chaetomium(s) L5

L6 0 CHAETOMIUM(S) L5

=> S Chaetomium and L5

L7 8 CHAETOMIUM AND L5

=> S Chaetomium and L4

L8 43 CHAETOMIUM AND L4

=> S Thermophilum and L4

L9 51 THERMOPHILUM AND L4

=> dup rem L9

PROCESSING COMPLETED FOR L9

L10 48 DUP REM L9 (3 DUPLICATES REMOVED)

=> dup rem L8

PROCESSING COMPLETED FOR L8

L11 41 DUP REM L8 (2 DUPLICATES REMOVED)

=> d ibib abs L11 1-41

L11 ANSWER 1 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2007:30150 USPATFULL << LOGINID::20070228>>

TITLE: Novel E

Novel EGIII-like enzymes, DNA encoding such enzymes and

methods for producing such enzymes

INVENTOR(S): Bower, Benjamin S., Pacifica, CA, UNITED STATES

Fowler, Timothy, San Carlos, CA, UNITED STATES Phillips, Jay Ian, Palo Alto, CA, UNITED STATES

NUMBER KIND DATE

PATENT INFORMATION: US 2007026420 A1 20070201 APPLICATION INFO.: US 2006-348013 A1 20060206 (11)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-284327, filed on 10

Apr 1999, ABANDONED

DOCUMENT TYPE:

Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Genencor International, Inc., 925 Page Mill Road, Palo

Alto, CA, 94304-1013, US

NUMBER OF CLAIMS:

EXEMPLARY CLAIM: 1-17

NUMBER OF DRAWINGS: 8 Drawing Page(s)

LINE COUNT: 2795

AB The present invention relates to methods of obtaining genes for novel enzymes which share certain conserved sequences with EGIII from Trichoderma reesei. These EG III like cellulases comprise an amino acid sequence comprising therein an amino acid string selected from the group consisting of:

(a) Asn-Asn-(Leu/Phe/Lys/Ile)-Trp-

(SEQ ID NO: 1)

Gly

(b) Glu-(Leu/Phe/Ile)-Met-Ile-Trp

(SEQ ID NO: 2)

(c) Gly-Thr-Glu-Pro-Phe-Thr;

(SEQ ID NO: 3)

(d) (Ser/Tyr/Cys/Trp/Thr/Asn/Lys/ Arg)-(Val/Pro)-(Lys/Ala)-(Ser/

(SEQ ID NO: 42)

Ala)-(Tyr/Phe);

(e) Lys-Asn-Phe-Phe-Asn-Tyr.

(SEQ ID NO: 5)

L11 ANSWER 2 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1

ACCESSION NUMBER:

2006:361406 CAPLUS << LOGINID::20070228>>

DOCUMENT NUMBER: 144:383435

TITLE:

Recombinant expression of \*\*\*Chaetomium\*\*\* thermophilum cellobiohydrolase 1 (cbh1) in Pichia

pastoris

INVENTOR(S): Li, Duochuan; Liu, Shouan

Shandong Agricultural University, Peop. Rep. China PATENT ASSIGNEE(S):

Faming Zhuanli Shenqing Gongkai Shuomingshu, 16 pp.

CODEN: CNXXEV

DOCUMENT TYPE:

Patent Chinese

LANGUAGE: FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

CN 1757710

A 20060412 CN 2005-10044074 20050715

PRIORITY APPLN. INFO.:

CN 2005-10044074 20050715

AB The invention relates to recombinant expression of \*\*\*Chaetomium\*\*\* thermophilum cellobiohydrolase 1 (cbh1) in Pichia pastoris. The expressed cellobiohydrolase 1 has high thermal stability and with enzymic activity of 21 U/mL. The detailed procedure for cloning is provided.

L11 ANSWER 3 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 2 2006:361403 CAPLUS << LOGINID::20070228>>

ACCESSION NUMBER: DOCUMENT NUMBER:

144:383434

TITLE:

Recombinant expression of \*\*\*Chaetomium\*\*\* thermophilum cellobiohydrolase II (cbh2) in Pichia

INVENTOR(S): Li, Duochuan; Liu, Shouan

Shandong Agricultural University, Peop. Rep. China PATENT ASSIGNEE(S):

SOURCE:

Faming Zhuanli Shenqing Gongkai Shuomingshu, 16 pp.

CODEN: CNXXEV

DOCUMENT TYPE:

Patent

LANGUAGE:

Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

A 20060412 CN 2005-10044073 CN 1757709 20050715

PRIORITY APPLN. INFO.:

CN 2005-10044073 20050715

AB The present invention relates to recombinant expression of

\*\*\*Chaetomium\*\*\* thermophilum cellobiohydrolase II (cbh2) in Pichia pastoris. The expressed cellobiohydrolase II has high thermal stability with activity of 26 U/mL. The Detailed procedure for cloning and expression of the enzyme is provided.

L11 ANSWER 4 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2006:288577 USPATFULL << LOGINID::20070228>>

TITLE: Novel cellulases and their uses

Vehmaanpera, Jari, Klaukkala, FINLAND INVENTOR(S):

Puranen, Terhi, Nurmijarvi, FINLAND

Valtakari, Leena, Rajamaki, FINLAND

Kallio, Jarno, Jarvenpaa, FINLAND Alapuranen, Marika, Tuusula, FINLAND

Paloheimo, Marja, Vantaa, FINLAND

Ojapalo, Pentti, Tuusula, FINLAND

PATENT ASSIGNEE(S): AB Enzymes GmbH, Darmstadt, GERMANY, FEDERAL REPUBLIC

OF (non-U.S. corporation)

## NUMBER KIND DATE

PATENT INFORMATION: US 2006246566 A1 20061102 APPLICATION INFO.: US 2005-119526 A1 20050429 (11)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: BANNER & WITCOFF, LTD., 28 STATE STREET, 28th FLOOR,

BOSTON, MA, 02109-9601, US

NUMBER OF CLAIMS: 66 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 17 Drawing Page(s)

LINE COUNT: 3105

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides novel cellulase fusion proteins, preparations of cellulase fusion proteins and compositions of cellulase fusion proteins. The present invention further provides cellulase expression vectors, host cells expressing cellulase and methods for preparing such vectors and cells. Uses of cellulases, cellulase preparations and cellulase compositions in the textile, detergent, pulp and paper industries are also provided.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 5 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2006:256214 USPATFULL <<LOGINID::20070228>>

TITLE:

Polypeptides having cellobiohydrolase activity and

polynucleotides encoding same

INVENTOR(S): Brown, Kimberly, Elk Grove, CA, UNITED STATES

Harris, Paul, Carnation, WA, UNITED STATES Lopez De Leon, Alfredo, Davis, CA, UNITED STATES Merino, Sandra, West Sacremento, CA, UNITED STATES

PATENT ASSIGNEE(S): Novozymes, Inc., Davis, CA, UNITED STATES (U.S.

corporation)

#### NUMBER KIND DATE

PATENT INFORMATION: US 2006218671 A1 20060928 APPLICATION INFO.: US 2006-327821 A1 20060106 (11)

#### NUMBER DATE

PRIORITY INFORMATION: US 2005-642274P 20050106 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: NOVOZYMES, INC., 1445 DREW AVE, DAVIS, CA, 95616, US

NUMBER OF CLAIMS: 46

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 9 Drawing Page(s)

LINE COUNT: 3058

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to isolated polypeptides having cellobiohydrolase activity and isolated polynucleotides encoding the polypeptides. The invention also relates to nucleic acid constructs, vectors, and host cells comprising the polynucleotides as well as methods for producing and using the polypeptides.

# CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 6 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2006:74200 USPATFULL << LOGINID::20070228>>

TITLE: Novel laccase enzyme and use thereof

INVENTOR(S): Paloheimo, Marja, Vantaa, FINLAND Valtakari, Leena, Rajamaki, FINLAND

Puranen, Terhi, Nurmijarvi, FINLAND Kruus, Kristiina, Espoo, FINLAND Kallio, Jarno, Jarvenpaa, FINLAND Mantyla, Arja, Helsinki, FINLAND Fagerstrom, Richard, Espoo, FINLAND Ojapalo, Pentti, Tuusula, FINLAND Vehmaanpera, Jari, Klaukkala, FINLAND
PATENT ASSIGNEE(S): AB Enzymes OY, Rajamaki, FINLAND, 05201 (non-U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 2006063246 A1 20060323 APPLICATION INFO.: US 2005-231706 A1 20050921 (11)

NUMBER DATE

PRIORITY INFORMATION: FI 2004-1220 20040921

US 2004-611819P 20040921 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: John Dodds, 1707 N St. NW, Washington, DC, 20036, US

NUMBER OF CLAIMS: 77 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 23 Drawing Page(s)

LINE COUNT: 2487

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a novel laccase enzyme obtainable from the strains of genus Thielavia. The invention relates also to the nucleic acid sequence encoding the enzyme, a recombinant host into which the nucleic acid sequence has been introduced and a method for the production of the enzyme in a recombinant host. The enzyme of the invention is suitable for several applications, in particular for increasing the lightness of denim.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 7 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2006:62342 USPATFULL << LOGINID::20070228>>

TITLE: Polypeptides having cellobiohydrolase II activity and

polynucleotides encoding same

INVENTOR(S): Wu, Wenping, Beijing, CHINA

Lange, Lene, Valby, DENMARK

Skovlund, Dominique Aubert, Copenhagen N, DENMARK

Liu, Ye, Beijing, CHINA

PATENT ASSIGNEE(S): Novozymes A/S, Bagsvaerd, DENMARK (non-U.S.

corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 2006053514 A1 20060309 APPLICATION INFO.: US 2003-540091 A1 20031219 (10)

WO 2003-DK914 20031219 20050620 PCT 371 date

NUMBER DATE

PRIORITY INFORMATION: US 2002-435100P 20021220 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: NOVOZYMES NORTH AMERICA, INC., 500 FIFTH AVENUE, SUITE

1600, NEW YORK, NY, 10110, US

NUMBER OF CLAIMS: 13 EXEMPLARY CLAIM: 1-22 LINE COUNT: 3792

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to polypeptides having cellobiohydrolase II activity and polynucleotides having a nucleotide sequence which encodes for the polypeptides. The invention also relates to nucleic acid constructs, vectors, and host cells comprising the nucleic acid constructs as well as methods for producing and using the polypeptides.

# CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 8 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2006:15865 USPATFULL << LOGINID::20070228>>

TITLE:

Method and DNA constructs for increasing the production level of carbohydrate degrading enzymes in filamentous

fungi

INVENTOR(S):

Paloheimo, Marja, Vantaa, FINLAND

Mantyla, Arja, Helsinki, FINLAND Leskinen, Sanna, Hanko, FINLAND Fagerstrom, Richard, Espoo, FINLAND Kallio, Jarno, Jarvenpaa, FINLAND Puranen, Terhi, Nurmijarvi, FINLAND Lantto, Raija, Klaukkala, FINLAND

Suominen, Pirkko, Maple Grove, MN, UNITED STATES

NUMBER KIND DATE

PATENT INFORMATION: US 2006014247 A1 20060119 APPLICATION INFO.: US 2005-108163 A1 20050418 (11)

NUMBER DATE

PRIORITY INFORMATION: US 2004-562692P 20040416 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK

AVENUE, N.W., WASHINGTON, DC, 20005, US

NUMBER OF CLAIMS: 30 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 12 Drawing Page(s)

LINE COUNT: 2357

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention is related to a method and DNA constructs for obtaining in a filamentous fungus host a higher production level of a carbohydrate degrading (CD) enzyme, having in its original state a catalytic module (CAT) and a carbohydrate binding module (CBM) separated by a linker region. The DNA construct comprising a truncated actinomycetes, preferably Nonomuraea flexuosa (NJ) derived DNA sequence encoding a truncated form of the CD enzyme, for example Nf Xyn11A, Nf Xyn10A, and is introduced into a filamentous fungal host. Said CD enzyme contains the catalytically active region of CAT but lacks part or all of the CBM, or all of the CBM and part or all of the linker region and is expressed and secreted under the control of regulatory sequences comprising at least a signal sequence, but also promoters, terminators and DNA sequences encoding a secretable carrier protein or domains thereof, preferably originating from filamentous fungi are included. The production level obtained with DNA sequence having the shortened DNA sequence encoding the truncated form of the CD enzyme is higher than the production level obtained with DNA construct encoding the corresponding full length CD enzyme.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 9 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2005:268106 USPATFULL << LOGINID::20070228>>

TTTLE: Methods for degrading or converting plant cell wall polysaccharides

polysaccharides
INVENTOR(S): Berka, Randy, Davis, CA, UNITED STATES

Cherry, Joel, Davis, CA, UNITED STATES

PATENT ASSIGNEE(S): Novozymes Biotech, Inc., Davis, CA, UNITED STATES (U.S.

corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 2005233423 A1 20051020 APPLICATION INFO.: US 2005-78921 A1 20050310 (11)

NUMBER DATE

PRIORITY INFORMATION: US 2004-556779P 20040325 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: NOVOZYMES BIOTECH, INC., 1445 DREW AVE, DAVIS, CA,

95616, US

NUMBER OF CLAIMS:

EXEMPLARY CLAIM: - 1

NUMBER OF DRAWINGS: 17 Drawing Page(s)

LINE COUNT: 3179

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to methods for converting plant cell wall polysaccharides into one or more products, comprising: treating the plant cell wall polysaccharides with an effective amount of a spent whole fermentation broth of a recombinant microorganism, wherein the recombinant microorganism expresses one or more heterologous genes encoding enzymes which degrade or convert the plant cell wall polysaccharides into the one or more products. The present invention also relates to methods for producing an organic substance, comprising: (a) saccharifying plant cell wall polysaccharides with an effective amount of a spent whole fermentation broth of a recombinant microorganism, wherein the recombinant microorganism expresses one or more heterologous genes encoding enzymes which degrade or convert the plant cell wall polysaccharides into saccharified material; (b) fermenting the saccharified material of step (a) with one or more fermenting microoganisms; and (c) recovering the organic substance from the fermentation.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 10 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2005:247215 USPATFULL <<LOGINID::20070228>>

TITLE: Modified xylanases exhibiting improved expression

White, Theresa, Ottawa, CANADA INVENTOR(S):

Giroux, Genevieve R., Gloucester, CANADA

Wallace, Katie E. A., Nepean, CANADA

PATENT ASSIGNEE(S): IOGEN BIO-PRODUCTS CORPORATION (non-U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 2005214410 A1 20050929 APPLICATION INFO.: US 2005-88725 A1 20050325 (11)

> NUMBER DATE

PRIORITY INFORMATION: US 2004-556061P 20040325 (60)

DOCUMENT TYPE: Utility APPLICATION FILE SEGMENT:

LEGAL REPRESENTATIVE: SUGHRUE MION, PLLC, 2100 PENNSYLVANIA AVENUE, N.W.,

SUITE 800, WASHINGTON, DC, 20037, US

NUMBER OF CLAIMS: 39 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 10 Drawing Page(s)

LINE COUNT: 2613

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A modified Family 11 xylanase enzyme comprising a sequence that introduces a functional consensus glycosylation site is provided. Non-limiting examples of introduced glycosylation sites include mutation of the amino acid at position 34, 131, 180, 182, or a combination thereof, to an asparagine. The indicated amino acid position in the Family 11 xylanase is determined from sequence alignment of the xylanase of interest with that of a Trichoderma reesei xylanase II amino acid sequence. The introduced consensus glycosylation site facilitates increased expression efficiency of the modified xylanase when compared to the expression efficiency of a corresponding xylanase from which the modified xylanase was derived, using similar host strains and growth conditions.

# CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 11 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2005:81561 USPATFULL << LOGINID::20070228>>

TITLE: Endoglucanases

Schulein, Martin, Copenhagen, DENMARK INVENTOR(S): Henriksen, Torben, Copenhagen, DENMARK LR

Andersen, Lene Nonboe, Allerod, DENMARK
Lassen, Soren Flensted, Kobenhavn N, DENMARK
Kauppinen, Markus Sakari, Kobenhavn N, DENMARK
Lange, Lene, Valby, DENMARK
Nielsen, Ruby Ilum, Farum, DENMARK
Takagi, Shinobu, Ichikawa-shi, JAPAN
Ihara, Michiko, Chiba-shi, JAPAN

PATENT ASSIGNEE(S): Novozymes A/S, Bagsvaerd, DENMARK, DK-2880 (non-U.S. corporation)

## NUMBER KIND DATE

PATENT INFORMATION: US 2005070003 A1 20050331 APPLICATION INFO.: US 2004-965499 A1 20041014 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2001-7521, filed on 10 Dec 2001, GRANTED, Pat. No. US 6855531 Continuation of Ser.

No. US 1999-229911, filed on 13 Jan 1999, GRANTED, Pat. No. US 6387690 Division of Ser. No. US 1996-651136, filed on 21 May 1996, GRANTED, Pat. No. US 6001639 Continuation of Ser. No. WO 1996-DK105, filed on 18 Mar 1996, UNKNOWN

#### NUMBER DATE

PRIORITY INFORMATION: DK 1995-272 19950317

DK 1995-885 19950808 DK 1995-886 19950808 DK 1995-887 19950808 JP 1995-888 19950808 JP 1996-137 19960212

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: NOVOZYMES NORTH AMERICA, INC., 500 FIFTH AVENUE, SUITE

1600, NEW YORK, NY, 10110

NUMBER OF CLAIMS: 20 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 8 Drawing Page(s)

LINE COUNT: 5810

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to enzyme preparations consisting essentially of an enzyme which has cellulytic activity and comprises a first amino acid sequence having the following sequence

(SEQ ID NO: 79)

Thr Arg Xaa Xaa Asp Cys Cys Xaa Xaa Xaa Cys Xaa Trp Xaa 1 2 3 4 5 6 7 8 9 10 11 12 13 14

and a second amino acid sequence having the following sequence

Trp Cys Cys Xaa Cys (SEQ ID NO: 80) 1 2 3 4 5

wherein, at position 3 of the first sequence, the amino acid is Trp, Tyr or Phe; at position 4 of the first sequence, the amino acid is Trp, Tyr or Phe; at position 8 of the first sequence, the amino acid is Arg, Lys or His; at positions 9, 10, 12 and 14, respectively, of the first sequence, and at position 4 of the second sequence, the amino acid is any of the 20 naturally occurring amino acid residues with the provisos that, in the first amino acid sequence, (i) when the amino residue at position 12 is Ser, then the amino acid residue at position 14 is not Ser, and (ii) when the amino residue at position 12 is Gly, then the amino acid residue at position 14 is not Ala, performs very well in industrial applications such as laundry compositions, for biopolishing of newly manufactured textiles, for providing an abraded look of cellulosic fabric or garment, and for treatment of paper pulp. Further, the invention relates to DNA constructs encoding such enzymes, a method for providing a gene encoding for such enzymes, a method of producing the enzymes, enzyme preparations containing such enzymes, and the use of these enzymes for a number of industrial applications.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 12 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2005:56704 USPATFULL <<LOGINID::20070228>>

TITLE: Variants of glycoside hydrolases

INVENTOR(S): Teter, Sarah, Davis, CA, UNITED STATES

Cherry, Joel, Davis, CA, UNITED STATES
Ward, Connie, Woodland, CA, UNITED STATES
Jones, Aubrey, Davis, CA, UNITED STATES
Harris, Paul, Carnation, WA, UNITED STATES
Yi, Jung, Sacramento, CA, UNITED STATES

PATENT ASSIGNEE(S): Novozymes Biotech, Inc., Davis, CA (U.S. corporation)

#### NUMBER KIND DATE

PATENT INFORMATION: US 2005048619 A1 20050303 APPLICATION INFO.: US 2004-926223 A1 20040825 (10)

#### NUMBER DATE

PRIORITY INFORMATION: US 2003-497809P 20030825 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: NOVOZYMES BIOTECH, INC., 1445 DREW AVE, DAVIS, CA,

95616

NUMBER OF CLAIMS: 36 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 20 Drawing Page(s)

LINE COUNT: 8623

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to variants of a parent glycoside hydrolase, comprising a substitution at one or more positions corresponding to positions 21, 94, 157, 205, 206, 247, 337, 350, 373, 383, 438, 455, 467, and 486 of amino acids 1 to 513 of SEQ ID NO: 2, and optionally further comprising a substitution at one or more positions corresponding to positions 8, 22, 41, 49, 57, 113, 193, 196, 226, 227, 246, 251, 255, 259, 301, 356, 371, 411, and 462 of amino acids 1 to 513 of SEQ ID NO: 2 a substitution at one or more positions corresponding to positions 8, 22, 41, 49, 57, 113, 193, 196, 226, 227, 246, 251, 255, 259, 301, 356, 371, 411, and 462 of amino acids 1 to 513 of SEQ ID NO: 2, wherein the variants have glycoside hydrolase activity. The present invention also relates to nucleotide sequences encoding the variant glycoside hydrolases and to nucleic acid constructs, vectors, and host cells comprising the nucleotide sequences.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 13 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2005:223268 USPATFULL << LOGINID::20070228>>

TITLE: Enhanced expression of proteins in genetically modified

fungi

INVENTOR(S): White, Theresa C., Ottawa, CANADA

McHugh, Sylvia, Gloucester, CANADA Hindle, Christopher D., Gloucester, CANADA

PATENT ASSIGNEE(S): Iogen Energy Corporation, Ontario, CANADA (non-U.S. corporation)

## NUMBER KIND DATE

PATENT INFORMATION: US 6939704 B1 20050906 APPLICATION INFO.: US 1999-392476 19990909 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1998-37524, filed

on 10 Mar 1998, Pat. No. US 6015703

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Wax, Robert A.

LEGAL REPRESENTATIVE: Fitzpatrick, Cella, Harper & Scinto

NUMBER OF CLAIMS: 27 EXEMPLARY CLAIM: 11

NUMBER OF DRAWINGS: 15 Drawing Figure(s); 11 Drawing Page(s)

LINE COUNT:

2652

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to increasing the production of a protein of interest from a fugal host. The invention discloses nucleotide sequences comprising, a regulatory region in operative association with xylanase secretion sequence and a gene of interest. The gene of interest encodes a protein selected from a pharmaceutical, nutraceutical, industrial, animal feed, food additive and an enzyme. Preferably, the gene of interest encodes a cellulase, hernicellulase, a lignin degrading enzyme, pectinase, protease, or peroxidase. The present invention also relates to vectors and hosts comprising these nucleic acid sequences, and to methods for the production of a protein of interest.

# CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 14 OF 41 USPATFULL on STN

2004:306976 USPATFULL <<LOGINID::20070228>> ACCESSION NUMBER:

TITLE:

Expression cloning in filamentous fungi

Van Den Brink, Johannes Maarten, Denmark, NETHERLANDS INVENTOR(S):

Selten, Gerardus Cornelis Maria, Berkel En Rodenrijs,

**NETHERLANDS** 

Van Den Hombergh, Johannes Petrus Theodorus Wilhelmus,

Meentweg, NETHERLANDS

PATENT ASSIGNEE(S): DSM N.V., TE Heerlen, NETHERLANDS, NL-6411 (non-U.S.

corporation)

#### NUMBER KIND DATE

PATENT INFORMATION: US 2004241647 A1 20041202

APPLICATION INFO.: US 2002-116396 A1 20020404 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-555998, filed on 17

Jul 2000, ABANDONED

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: McDonnell Boehnen Hulbert & Berghoff, 32nd Floor, 300

\$. Wacker Drive, Chicago, IL, 60606

NUMBER OF CLAIMS: 14 1

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 18 Drawing Page(s)

LINE COUNT: 1626

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods are provided for isolation of DNA sequences encoding proteins

with properties of interest by means of expression cloning in

filamentous fungal host cells. The isolated DNA sequences are useful in

processes for producing the proteins of interest.

# CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 15 OF 41 USPATFULL on STN

2004:254364 USPATFULL <<LOGINID::20070228>> ACCESSION NUMBER:

TITLE:

Polypeptides having cellobiohydrolase I activity and

polynucleotides encoding same

INVENTOR(S):

Lange, Lene, Valby, DENMARK

Wu, Wenping, Beijing, CHINA

Aubert, Dominique, Copenhagen, DENMARK Landvik, Sara, Copenhagen, DENMARK

Schnorr, Kirk Matthew, Bagsvaerd, DENMARK

Clausen, Ib Groth, Birkerod, DENMARK

#### NUMBER KIND DATE

PATENT INFORMATION: US 2004197890 A1 20041007 APPLICATION INFO.: US 2003-481179 A1 20031217 (10)

WO 2002-DK429 20020626

> NUMBER -DATE

PRIORITY INFORMATION: DK 2001-1000 20010626

DOCUMENT TYPE:

Utility

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE: NOVOZYMES NORTH AMERICA, INC., 500 FIFTH AVENUE, SUITE 1600, NEW YORK, NY, 10110

NUMBER OF CLAIMS: 21

EXEMPLARY CLAIM: CLM-01-29

LINE COUNT: 7625

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to polypeptides having cellobiohydrolase I activity and polynucleotides having a nucleotide sequence which encodes for the polypeptides. The invention also relates to nucleic acid constructs, vectors, and host cells comprising the nucleic acid constructs as well as methods for producing and using the polypeptides.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 16 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2004:239692 USPATFULL << LOGINID::20070228>>

TITLE:

Novel cellulases, the genes encoding them and uses

thereof

INVENTOR(S):

Miettinen-Oinonen, Arja, Masala, FINLAND

Londesborough, John, Helsinki, FINLAND Vehmaanpera, Jari, Klaukkala, FINLAND Haakana, Heli, Espoo, FINLAND Mantyla, Arja, Helsinki, FINLAND Lantto, Raija, Klaukkala, FINLAND Elovainio, Minna, Helsinki, FINLAND

Joutsjoki, Vesa, Jokioinen, FINLAND Paloheimo, Marja, Vantaa, FINLAND

Suominen, Pirkko, Helsinki, FINLAND

## NUMBER KIND DATE

PATENT INFORMATION: US 2004185498 A1 20040923 APPLICATION INFO.: US 2004-825378 A1 20040416 (10)

RELATED APPLN. INFO.: Division of Ser. No. US 1997-841636, filed on 30 Apr 1997, GRANTED, Pat. No. US 6723549 Continuation of Ser. No. WO 1996-FI550, filed on 17 Oct 1996, UNKNOWN Continuation-in-part of Ser. No. US 1996-732181, filed

on 16 Oct 1996, ABANDONED

#### NUMBER DATE

PRIORITY INFORMATION: US 1995-5335P 19951017 (60)

US 1995-7926P 19951204 (60) US 1996-20840P 19960628 (60)

Utility DOCUMENT TYPE:

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W., WASHINGTON, DC, 20005

NUMBER OF CLAIMS: 30 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 37 Drawing Page(s)

LINE COUNT: 3446

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Genes encoding novel cellulases, and a gene encoding a protein that facilitates the action of such novel cellulases, the novel cellulases and a protein that facilitates the action of such cellulases, and enzyme preparations containing such proteins are described. The native hosts and the culture medium of said hosts containing said novel cellulases are also disclosed. These proteins are especially useful in the textile and detergent industry and in pulp and paper industry.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 17 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2004:184561 USPATFULL << LOGINID::20070228>>

Novel cellulases, the genes encoding them and uses TITLE:

thereof

INVENTOR(S): Miettinen-Oinonen, Arja, Masala, FINLAND

Londesborough, John, Helsinki, FINLAND Vehmaanpera, Jari, Klaukkala, FINLAND

Haakana, Heli, Espoo, FINLAND Mantyla, Arja, Helsinki, FINLAND Lantto, Raija, Klaukkala, FINLAND Elovainio, Minna, Helsinki, FINLAND Joutsjoki, Vesa, Jokioinen, FINLAND Paloheimo, Marja, Vantaa, FINLAND Suominen, Pirkko, Helsinki, FINLAND

#### NUMBER KIND DATE

PATENT INFORMATION: US 2004142444 A1 20040722 APPLICATION INFO.: US 2004-782002 A1 20040220 (10) RELATED APPLN. INFO.: Division of Ser. No. US 1997-841636, filed on 30 Apr 1997, GRANTED, Pat. No. US 6723549 Continuation of Ser. No. WO 1996-FI550, filed on 17 Oct 1996, UNKNOWN Continuation-in-part of Ser. No. US 1996-732181, filed on 16 Oct 1996, ABANDONED

#### NUMBER DATE

19951017 (60) PRIORITY INFORMATION: US 1995-5335P

> US 1995-7926P 19951204 (60)

US 1996-20840P 19960628 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK

AVENUE, N.W., WASHINGTON, DC, 20005

NUMBER OF CLAIMS: 30

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 37 Drawing Page(s)

LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Genes encoding novel cellulases, and a gene encoding a protein that facilitates the action of such novel cellulases, the novel cellulases and a protein that facilitates the action of such cellulases, and enzyme preparations containing such proteins are described. The native hosts and the culture medium of said hosts containing said novel cellulases are also disclosed. These proteins are especially useful in the textile and detergent industry and in pulp and paper industry.

# CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 18 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2004:2115 USPATFULL << LOGINID::20070228>>

TITLE:

Transformation system in the field of filamentous

fungal hosts

INVENTOR(S): Emalfarb, Mark Aaron, Jupiter, FL, UNITED STATES Burlingame, Richard Paul, Manitowoc, WI, UNITED STATES Olson, Philip Terry, Manitowoc, WI, UNITED STATES

Sinitsyn, Arkady Panteleimonovich, Moscow, RUSSIAN

**FEDERATION** 

Parriche, Martine, Toulouse, FRANCE

Bousson, Jean Christophe, Quint-Fonsegrives, FRANCE

Pynnonen, Christine Marie, Appleton, WI, UNITED STATES

Punt, Peter Jan, Houten, NETHERLANDS

Van Zeijl, Cornelia Maria Johanna, Vleuten-De Meern,

**NETHERLANDS** 

#### NUMBER KIND DATE

PATENT INFORMATION: US 2004002136 A1 20040101 APPLICATION INFO.: US 2003-394568 A1 20030321 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-548938, filed on 13

Apr 2000, GRANTED, Pat. No. US 6573086

Continuation-in-part of Ser. No. WO 1998-EP6496, filed on 6 Oct 1998, UNKNOWN Continuation-in-part of Ser. No.

WO 1999-NL618, filed on 6 Oct 1999, UNKNOWN Utility

DOCUMENT TYPE: FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE: MORGAN & FINNEGAN, L.L.P., 345 Park Avenue, New York,

NY, 10154-0053

NUMBER OF CLAIMS:

EXEMPLARY CLAIM:

1

NUMBER OF DRAWINGS: 35 Drawing Page(s)

LINE COUNT:

2982

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel transformation system in the field of filamentous fungal hosts for expressing and secreting heterologous proteins or polypeptides is described. The invention also covers a process for producing large amounts of polypeptide or protein in an economical manner. The system comprises a transformed or transfected fungal strain of the genus Chrysosporium, more particularly of Chrysosporium lucknowense and mutants or derivatives thereof. It also covers transformants containing Chrysosporium coding sequences, as well expression-regulating sequences of Chrysosporium genes. Also provided are novel fungal enzymes and their encoding sequences and expression-regulating sequences.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 19 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2003:288709 USPATFULL << LOGINID::20070228>>

Novel variant EGIII-like cellulase compositions TITLE:

INVENTOR(S): Gualfetti, Peter, San Francisco, CA, UNITED STATES

Mitchinson, Colin, Half Moon Bay, CA, UNITED STATES

Phillips, Jay, Palo Alto, CA, UNITED STATES

#### NUMBER KIND DATE

PATENT INFORMATION: US 2003203467 A1 20031030

US 7094588 B2 20060822

APPLICATION INFO.: US 2003-441625 A1 20030519 (10)

RELATED APPLN. INFO.: Division of Ser. No. US 2000-632570, filed on 4 Aug

2000, PENDING

DOCUMENT TYPE: FILE SEGMENT:

Utility APPLICATION

LEGAL REPRESENTATIVE: Genencor International, Inc., 925 Page Mill Road, Palo

Alto, CA, 94034-1013

NUMBER OF CLAIMS:

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 5 Drawing Page(s)

LINE COUNT: 2448

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to novel variant EGIII or EGIII-like cellulases that have improved stability. The variant cellulases have performance sensitive residues replaced to a residue having modified stability.

# CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 20 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2003:266226 USPATFULL << LOGINID::20070228>> TITLE:

Novel expression-regulating sequences and expression products in the field of filamentous fungi

INVENTOR(S): Emalfarb, Mark Aaron, Jupiter, FL, UNITED STATES

Punt, Peter Jan, Houten, NETHERLANDS

Johanna Van Zeijl, Cornelia Maria, Vleuten De Meern,

**NETHERLANDS** 

#### NUMBER KIND DATE

PATENT INFORMATION: US 2003187243 A1 20031002 APPLICATION INFO.: US 2003-257629 A1 20030411 (10)

> WO 2001-NL301 20010417

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Morgan & Finnegan, Suite 700, 1775 Eye Street,

Washington, DC, 20006

NUMBER OF CLAIMS: 15

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 2 Drawing Page(s)

LINE COUNT:

2522

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention pertains to novel proteins corresponding to Chrysosporium glycosyl hydrolases of families 7 and 10, exhibiting a minimum aminoacid identity of 70 and 75%, respectively, with the amino acid sequence of SEQ ID No's 2 and 4, and to a protein corresponding to a Chrysosporium glyceraldehyde phosphate dehydrogenase, exhibiting at least 86% amino acid identity with the partial amino acid sequence of SEQ ID No. 6. The invention further relates to nucleic acid sequences encoding these proteins, and especially to promoter sequences regulating the expression of the corresponding genes. The preferred host for expressing these genes is a fungus, especially a Chrysosporium strain.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 21 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2003:265403 USPATFULL << LOGINID::20070228>>

TITLE: Novel variant EGIII-like cellulase compositions

INVENTOR(S): Gualfetti, Peter, San Francisco, CA, UNITED STATES

Mitchinson, Colin, Half Moon Bay, CA, UNITED STATES

Phillips, Jay, Palo Alto, CA, UNITED STATES

### NUMBER KIND DATE

PATENT INFORMATION: US 2003186418 A1 20031002

APPLICATION INFO.: US 2003-441626 A1 20030519 (10)

RELATED APPLN. INFO.: Division of Ser. No. US 2000-632570, filed on 4 Aug

2000, PENDING

DOCUMENT TYPE:

E: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Genencor International, Inc., 925 Page Mill Road, Palo

Alto, CA, 94034-1013 NUMBER OF CLAIMS: 22

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 5 Drawing Page(s)

LINE COUNT: 2451

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to novel variant EGIII or EGIII-like cellulases that have improved stability. The variant cellulases have performance sensitive residues replaced to a residue having modified stability.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 22 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2003:213815 USPATFULL << LOGINID::20070228>>

TITLE: Production and secretion of proteins of bacterial

origin in filamentous fungi

INVENTOR(S): Mantyla, Arja, Helsinki, FINLAND

Paloheimo, Marja, Vantaa, FINLAND

Lantto, Raija, Klaukkala, FINLAND

Fagerstrom, Richard, Espoo, FINLAND

Lahtinen, Tarja, Vantaa, FINLAND

Suominen, Pirkko, Helsinki, FINLAND

Vehmaanpera, Jari, Klaukkala, FINLAND

PATENT ASSIGNEE(S): Rohm Enzyme Finland Oy (non-U.S. corporation)

#### NUMBER KIND DATE

PATENT INFORMATION: US 2003148453 A1 20030807

APPLICATION INFO.: US 2002-286993 A1 20020813 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1998-120804, filed on 23

Jul 1998, ABANDONED Continuation of Ser. No. WO

1997-FI37, filed on 24 Jan 1997, UNKNOWN

Continuation-in-part of Ser. No. US 1996-590563, filed

on 26 Jan 1996, PATENTED Continuation-in-part of Ser.
No. US 1995-468812, filed on 6 Jun 1995, GRANTED, Pat.

No. US 5935836 Continuation-in-part of Ser. No. US

1994-332412, filed on 31 Oct 1994, ABANDONED

Continuation-in-part of Ser. No. US 1994-282001, filed

on 29 Jul 1994, ABANDONED

DOCUMENT TYPE:

Utility

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE: STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK

AVENUE, N.W., SUITE 600, WASHINGTON, DC, 20005-3934

NUMBER OF CLAIMS: 28 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 31 Drawing Page(s)

LINE COUNT: 3062

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is related to an improved production of bacterial proteins in filamentous fungus, e.g. in Tfichodenna and Aspergillus. The improvement is achieved by constructing expression vectors, which comprise the bacterial protein encoding DNA sequences fused in frame with a DNA sequence encoding a filamentous fungus secretable protein or one or more functional domains of said protein. Filamentous fungus hosts transformed with such expression vectors secrete the desired proteins or enzymes, especially xylanases or cellulases originating from bacteria or more preferably from actinornycetes into the culture medium of the host. The desired proteins or enzymes can be used directly from the culture medium after separation of host cells or recovered and treated using down-stream processes, which are appropriate for the respective application. Xylanases or cellulases from actinomycetes produced using the above expression vectors are most suitable for treating plant derived materials e.g. in pulp and paper industries.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 23 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2003:152880 USPATFULL << LOGINID::20070228>>

TITLE: Microbial swollenin protein, DNA sequences encoding such swollenins and method of producing such swollenins

INVENTOR(S): Swanson, Barbara A., San Francisco, CA, UNITED STATES

Ward, Michael, San Francisco, CA, UNITED STATES

Penttila, Merja, Helsinki, FINLAND Pere, Jaakko, Vantaa, FINLAND

Saloheimo, Markku, Helsinki, FINLAND

# NUMBER KIND DATE

PATENT INFORMATION: US 2003104546 A1 20030605

US 6967246 B2 20051122

APPLICATION INFO.: US 2002-197294 A1 20020717 (10)

RELATED APPLN. INFO.: Division of Ser. No. US 1998-112498, filed on 9 Jul

1998, GRANTED, Pat. No. US 6458928 Continuation-in-part

of Ser. No. US 1997-893766, filed on 11 Jul 1997,

**ABANDONED** 

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: GENENCOR INTERNATIONAL, INC., 925 PAGE MILL ROAD, PALO

ALTO, CA, 94304

NUMBER OF CLAIMS: 35

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 6 Drawing Page(s)

LINE COUNT: 1903

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel microbial protein is described which appears to have significant homology to plant expansin proteins and has the ability to weaken filter paper and swell cellulose. A DNA is described which encodes the novel protein.

# CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 24 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2003:78618 USPATFULL << LOGINID::20070228>>

TITLE: Endoglucanases

INVENTOR(S): Schulein, Martin, Copenhagen, DENMARK

Dela, Hanne, Copenhagen, DENMARK LR Andersen, Lene Nonboe, Allerod, DENMARK Lassen, Soren Flensted, Kobenhavn N, DENMARK Kauppinen, Markus Sakari, Kobenhavn N, DENMARK Lange, Lene, Valby, DENMARK Nielsen, Ruby Ilum, Farum, DENMARK Takagi, Shinobu, Ichikawa-shi, JAPAN Ihara, Michiko, Chiba-shi, JAPAN

PATENT ASSIGNEE(S): Novozymes A/S, Bagsvaerd, DENMARK, D (non-U.S. corporation)

> NUMBER KIND DATE

PATENT INFORMATION: US 2003054539 A1 20030320

> US 6855531 B2 20050215

APPLICATION INFO.: US 2001-7521 A1 20011210 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-229911, filed on 13

Jan 1999, PENDING Division of Ser. No. US 1996-651136,

filed on 21 May 1996, PATENTED

NUMBER DATE

PRIORITY INFORMATION: DK 1995-272 19950317

> DK 1995-888 19950808 DK 1995-887 19950808 DK 1995-886 19950808 DK 1995-885 19950808 DK 1996-137 19960212

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: NOVOZYMES NORTH AMERICA, INC., C/O NOVO NORDISK OF

NORTH AMERICA, INC., 405 LEXINGTON AVENUE, SUITE 6400,

**NEW YORK, NY, 10174** 

NUMBER OF CLAIMS: 105

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 7 Drawing Page(s)

LINE COUNT: 4551

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to enzyme preparations consisting essentially of an enzyme which has cellulytic activity and comprises a first amino acid sequence having the following sequence

(SEQ ID NO:79) Thr Arg Xaa Xaa Asp Cys Cys Xaa Xaa 1 2 3 4 5 6 7 8 9

Xaa Cys Xaa Trp Xaa 10 11 12 13 14

and a second amino acid sequence having the following sequence

Trp Cys Cys Xaa Cys (SEQ ID NO:80) 1 2 3 4 5

wherein, at position 3 of the first sequence, the amino acid is Trp, Tyr or Phe; at position 4 of the first sequence, the amino acid is Trp, Tyr or Phe; at position 8 of the first sequence, the amino acid is Arg, Lys or His; at positions 9, 10, 12 and 14, respectively, of the first sequence, and at position 4 of the second sequence, the amino acid is any of the 20 naturally occurring amino acid residues with the provisos that, in the first amino acid sequence, (i) when the amino residue at position 12 is Ser, then the amino acid residue at position 14 is not Ser, and (ii) when the amino residue at position 12 is Gly, then the amino acid residue at position 14 is not Ala, performs very good in industrial applications such as laundry compositions, for biopolishing of newly manufactured textiles, for providing an abraded look of cellulosic fabric or garment, and for treatment of paper pulp. Further, the invention relates to DNA constructs encoding such enzymes, a method for providing a gene encoding for such enzymes, a method of producing the enzymes, enzyme preparations containing such enzymes, and the use of these enzymes for a number of industrial applications.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 25 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2003:78598 USPATFULL << LOGINID::20070228>>

TITLE: Novel xylanase from trichoderma reesei, method for production thereof, and methods employing this enzyme

INVENTOR(S): Saloheimo, Markku La, Helsinki, FINLAND

Siika-Aho, Matti, Helsinki, FINLAND Tenkanen, Maija, Espoo, FINLAND Penttila, Merja E., Helsinki, FINLAND

NUMBER KIND DATE

PATENT INFORMATION: US 2003054518 A1 20030320

US 6768001 B2 20040727

APPLICATION INFO.: US 2002-159487 A1 · 20020531 (10)

RELATED APPLN. INFO.: Division of Ser. No. US 2000-658772, filed on 11 Sep

2000, PENDING

NUMBER DATE

PRIORITY INFORMATION: US 1999-173889P 19991230 (60)

DOCUMENT TYPE:

Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Genencor International, Inc., 925 Page Mill Road, Palo

Alto, CA, 94034-1013

NUMBER OF CLAIMS: 44 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 7 Drawing Page(s)

LINE COUNT: 1830

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to novel xylanases (referred to as XYL-IV) and to nucleic acid molecules encoding those xylanases. Also provided herein are vectors and host cells including those nucleic acid sequences, antibodies which bind to the xylanases of the present invention, methods for producing the xylanases of the present invention, and methods employing the xylanases of the present invention.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 26 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2003:279106 USPATFULL <<LOGINID::20070228>>

TITLE: Mutant EGIII cellulase, DNA encoding such EGIII

compositions and methods for obtaining same

INVENTOR(S): Gualfetti, Peter, San Francisco, CA, United States

Mitchinson, Colin, Half Moon Bay, CA, United States

Ropp, Traci H., San Francisco, CA, United States

PATENT ASSIGNEE(S): Genencor International, Inc., Palo Alto, CA, United

States (U.S. corporation)

# NUMBER KIND DATE

PATENT INFORMATION: US 6635465 B1 20031021 APPLICATION INFO.: US 2000-632575 20000804 (9)

DOCUMENT TYPE: Utility

FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Patterson, Jr., Charles L.

LEGAL REPRESENTATIVE: Genencor International, Inc

NUMBER OF CLAIMS: 11 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 5 Drawing Figure(s); 5 Drawing Page(s)

LINE COUNT: 2248

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to variant EGIII cellulases that have improved stability and/or performance. The variant cellulases have replacements at sensitive residues to improve stability and/or performance.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

#### L11 ANSWER 27 OF 41 USPATFULL on STN

2003:279105 USPATFULL << LOGINID::20070228>> ACCESSION NUMBER:

TITLE: Xylanases, genes encoding them, and uses thereof

INVENTOR(S): Paloheimo, Marja, Vantaa, FINLAND

Hakola, Satu, Perttula, FINLAND Mantyla, Arja, Helsinki, FINLAND

Vehmaanpera, Jari, Klaukkala, FINLAND Lantto, Raija, Klaukkala, FINLAND Lahtinen, Tarja, Vantaa, FINLAND

Fagerstrom, Richard, Espoo, FINLAND Suominen, Pirkko, Helsinki, FINLAND

PATENT ASSIGNEE(S): Rohm Enzyme Finland OY, Rajamaki, FINLAND (non-U.S.

corporation)

#### NUMBER KIND DATE

PATENT INFORMATION: US 6635464 B1 20031021 20010507 (9) APPLICATION INFO.: US 2001-849242

RELATED APPLN. INFO.: Division of Ser. No. US 1996-768373, filed on 17 Dec

1996, now patented, Pat. No. US 6228629

#### NUMBER DATE

PRIORITY INFORMATION: US 1995-8746P 19951218 (60)

US 1996-20839P 19960628 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Prouty, Rebecca E. ASSISTANT EXAMINER: Rao, Manjunath N.

LEGAL REPRESENTATIVE: Sterne, Kessler, Goldstein & Fox P.L.L.C.

NUMBER OF CLAIMS: 17

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 14 Drawing Figure(s); 14 Drawing Page(s)

LINE COUNT: 1719

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB DNA encoding novel xylanases, vectors containing such DNA, hosts transformed with such DNA, enzyme preparations, and the use of such preparations are described.

# CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 28 OF 41 USPATFULL on STN

2003:253540 USPATFULL: <<LOGINID::20070228>> ACCESSION NUMBER:

Variant EGIII-like cellulase compositions TITLE:

Gualfetti, Peter, San Francisco, CA, United States INVENTOR(S):

Mitchinson, Colin, Half Moon Bay, CA, United States

Phillips, Jay, Palo Alto, CA, United States

PATENT ASSIGNEE(S): Genencor International, Inc., Palo Alto, CA, United

States (U.S. corporation)

#### NUMBER KIND DATE

PATENT INFORMATION: US 6623949 B1 20030923 20000804 (9) APPLICATION INFO.: US 2000-632570

DOCUMENT TYPE: Utility

GRANTED FILE SEGMENT:

PRIMARY EXAMINER: Patterson, Jr., Charles L.

LEGAL REPRESENTATIVE: Genencor International, Inc

NUMBER OF CLAIMS: 12

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 5 Drawing Figure(s); 5 Drawing Page(s)

LINE COUNT: 2361

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to novel variant EGIII or EGIII-like cellulases that have improved stability. The variant cellulases have performance sensitive residues replaced to a residue having modified

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

#### L11 ANSWER 29 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2003:161939 USPATFULL << LOGINID::20070228>>

TITLE: Variant EGIII-like cellulase compositions

INVENTOR(S): Day, Anthony G., San Francisco, CA, United States

Gualfetti, Peter, San Francisco, CA, United States Mitchinson, Colin, Half Moon Bay, CA, United States

Shaw, Andrew, San Francisco, CA, United States

PATENT ASSIGNEE(S): Genencor International, Inc., Palo Alto, CA, United States (U.S. corporation)

## NUMBER KIND DATE

PATENT INFORMATION: US 6579841 B1 20030617 APPLICATION INFO.: US 2000-633085 20000804 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1998-216295, filed

on 18 Dec 1998, now patented, Pat. No. US 6268328

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Gupta, Yogendra N.

ASSISTANT EXAMINER: Elhilo, Eisa

LEGAL REPRESENTATIVE: Genencor International, Inc.

NUMBER OF CLAIMS: 21 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 5 Drawing Figure(s); 5 Drawing Page(s)

LINE COUNT: 1729

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to novel variant EGIII or EGIII-like cellulases which have improved stability. The variant cellulases have performance sensitive residues replaced to a residue having modified stability.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 30 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2003:148888 USPATFULL << LOGINID::20070228>>

TITLE: Transformation system in the field of filamentous

fungal hosts

INVENTOR(S): Emalfrab, Mark Aaron, Jupiter, FL, United States

Burlingame, Richard Paul, Manitowoe, WI, United States Olson, Philip Terry, Manitowoe, WI, United States

Sinitsyn, Arkady Panteleimonovich, Moscow, RUSSIAN

FEDERATION

Parriche, Martine, Toulouse, FRANCE

Bousson, Jean Christophe, Quint-Fonsegrives, FRANCE

Pynnonen, Christine Marie, Manitowoc, WI, United States

Punt, Peter Jan, Houten, NETHERLANDS

Van Zeijl, Cornelia Marie Johanna, Vieuten-De Meern,

**NETHERLANDS** 

PATENT ASSIGNEE(S): Dyadic International, Inc., Jupiter, FL, United States (U.S. corporation)

## NUMBER KIND DATE

PATENT INFORMATION: US 6573086 B1 20030603 APPLICATION INFO.: US 2000-548938 20000413 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. WO 1999-NL618, filed

on 6 Oct 1999 Continuation-in-part of Ser. No. WO

1998-EP6496, filed on 6 Oct 1998

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Ketter, James

LEGAL REPRESENTATIVE: Morgan & Finnegan, LLP

NUMBER OF CLAIMS: 25 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 69 Drawing Figure(s); 36 Drawing Page(s)

LINE COUNT: 3710

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel transformation system in the field of filamentous fungal hosts for expressing and secreting heterologous proteins or polypeptides is described. The invention also covers a process for producing large amounts of polypeptide or protein in an economical manner. The system

comprises a transformed or transfected fungal strain of the genus Chrysosporium, more particularly of Chrysosporium lucknowense and mutants or derivatives thereof. It also covers transformants containing Chrysosporium coding sequences, as well expression-regulating sequences of Chrysosporium genes. Also provided are novel fungal enzymes and their encoding sequences and expression-regulating sequences.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 31 OF 41 USPATFULL on STN

2003:115726 USPATFULL <<LOGINID::20070228>> ACCESSION NUMBER:

TITLE:

Xylanase from Trichoderma reesei, method for

production thereof, and methods employing this enzyme

INVENTOR(S): Saloheimo, Markku La, Helsinki, FINLAND

Siika-Aho, Matti, Helsinki, FINLAND Tenkanen, Maija, Espoo, FINLAND

Penttila, Merja E., Helsinki, FINLAND

PATENT ASSIGNEE(S): Genencor International, Inc., Palo Alto, CA, United

States (U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 6555335

B1 20030429

APPLICATION INFO.: US 2000-658772 20000911 (9)

> NUMBER DATE

PRIORITY INFORMATION: US 1999-173889P 19991230 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT:

**GRANTED** 

PRIMARY EXAMINER: Yucel, Remy

ASSISTANT EXAMINER: Davis, Katherine F

LEGAL REPRESENTATIVE: Genencor International, Inc

NUMBER OF CLAIMS: 10 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 13 Drawing Figure(s); 7 Drawing Page(s)

LINE COUNT: 1790

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to novel xylanases (referred to as XYL-IV) and to nucleic acid molecules encoding those xylanases. Also provided herein are vectors and host cells including those nucleic acid sequences, antibodies which bind to the xylanases of the present invention, methods for producing the xylanases of the present invention, and methods employing the xylanases of the present invention.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 32 OF 41 USPATFULL on STN

2002:301207 USPATFULL << LOGINID::20070228>> ACCESSION NUMBER:

TITLE: NOVEL CELLULASES, THE GENES ENCODING THEM AND USES

THEREOF

MIETTINEN-OINONEN, ARJA, MASALA, FINLAND INVENTOR(S):

LONDESBOROUGH, JOHN, HELSINKI, FINLAND

VEHMAANPERA, JARI, KLAUKKALA, FINLAND

HAAKANA, HELL RAJAMAKI, FINLAND

MANTYLA, ARJA, HELSINKI, FINLAND LANTTO, RAIJA, KLAUKKALA, FINLAND

ELOVAINIO, MINNA, HELSINKI, FINLAND

JOUTSJOKI, VESA, HELSINKI, FINLAND

PALOHEIMO, MARJA, VANTAA, FINLAND

SUOMINEN, PIRKKO, HELSINKI, FINLAND

NUMBER KIND DATE

PATENT INFORMATION: US 2002168751 Al 20021114

US 6723549 B2 20040420

APPLICATION INFO.: US 1997-841636 A1 19970430 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1996-732181, filed

on 16 Oct 1996, ABANDONED

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: STERNE KESSLER GOLDSTEIN AND FOX, SUITE 600, 1100 NEW

YORK AVENUE NW, WASHINGTON, DC, 200053934

NUMBER OF CLAIMS: 30 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 33 Drawing Page(s)

LINE COUNT: 3553

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Genes encoding novel cellulases, and a gene encoding a protein that facilitates the action of such novel cellulases, the novel cellulases and a protein that facilitates the action of such cellulases, and enzyme preparations containing such proteins are described. The native hosts and the culture medium of said hosts containing said novel cellulases are also disclosed. These proteins are especially useful in the textile and detergent industry and in pulp and paper industry.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 33 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2002:280100 USPATFULL << LOGINID::20070228>>

TITLE: Expression cloning in filamentous fungi

INVENTOR(S): Van Den Brink, Johannes Maarten, Kobnhavn-O, DENMARK

Selten, Gerardus Cornelis Maria, Berkel En Rodenrijs,

**NETHERLANDS** 

Van Den Hombergh, Johannes Petrus Theodorus Wilhelmus,

de Meern, NETHERLANDS

#### NUMBER KIND DATE

PATENT INFORMATION: US 2002155536 A1 20021024
APPLICATION INFO: US 2001-993164 A1 20011105 (9)
PEL ATED APPLIN INFO: Division of Ser. No. US 2000 555998 file

RELATED APPLN. INFO.: Division of Ser. No. US 2000-555998, filed on 17 Jul 2000, PENDING

NUMBER DATE

PRIORITY INFORMATION: WO 1998-EP8577 19981222

EP 1997-204079 19971222

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: McDonnell Boehnen Hulbert & Berghoff, 32nd Floor, 300

S. Wacker Drive, Chicago, IL, 60606

NUMBER OF CLAIMS: 9 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 18 Drawing Page(s)

LINE COUNT: 1628

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods are provided for isolation of DNA sequences encoding proteins

with properties of interest by means of expression cloning in

filamentous fungal host cells. The isolated DNA sequences are useful in

processes for producing the proteins of interest.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 34 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2002:164732 USPATFULL <<LOGINID::20070228>>

TITLE: MICROBIAL SWOLLENIN PROTEIN, DNA SEQUENCES ENCODING

SUCH SWOLLENINS AND METHOD OF PRODUCING SUCH SWOLLENINS

INVENTOR(S): SWANSON, BARBARA A., SAN FRANCISCO, CA, UNITED STATES WARD, MICHAEL, SAN FRANCISCO, CA, UNITED STATES

PENTTILA, MERJA, HELSINKI, FINLAND

JAAKKO, PERE, VANTAA, FINLAND

SALOHEIMO, MARKKU, HELSINKI, FINLAND

# NUMBER KIND DATE

PATENT INFORMATION: US 2002086350 A1 20020704

US 6458928 B2 20021001

APPLICATION INFO.: US 1998-112498 A1 19980709 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1997-893766, filed

on 11 Jul 1997, ABANDONED

DOCUMENT TYPE:

Utility

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE: KIRSTEIN A ANDERSON, GENENCOR INTERNATIONAL, 925 PAGE

MILL ROAD, PALO ALTO, CA, 943041013

NUMBER OF CLAIMS: 35 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 6 Drawing Page(s)

LINE COUNT: 1328

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel microbial protein is described which appears to have significant homology to plant expansin proteins and has the ability to weaken filter paper and swell cellulose. A DNA is described which encodes the novel protein.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 35 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2002:108877 USPATFULL <<LOGINID::20070228>>

TITLE:

Endoglucanases

INVENTOR(S): Schulein, Martin, Copenhagen, DENMARK

Andersen, Lene Nonboe, Aller.o slashed.d, DENMARK Lassen, S.o slashed.ren Flensted, Copenhagen, DENMARK Kauppinen, Markus Sakari, Copenhagen, DENMARK

Lange, Lene, Valby, DENMARK

Nielsen, Ruby Ilum, Farum, DENMARK

Ihara, Michiko, Chiba, JAPAN Takagi, Shinobu, Chiba, JAPAN

PATENT ASSIGNEE(S): Novozymes A/S, Bagsvaerd, DENMARK (non-U.S.

corporation)

#### NUMBER KIND DATE

PATENT INFORMATION: US 6387690 B1 20020514 APPLICATION INFO.: US 1999-229911 19990113 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1996-651136, filed on 21 May

1996, now patented, Pat. No. US 6001639

# NUMBER DATE

PRIORITY INFORMATION: DK 1995-272 19950317

DK 1995-885 19950808 DK 1995-886 19950808 DK 1995-887 19950808

DK 1995-887 19950808 DK 1995-888 19950808

DK 1996-137 19960212

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Slobodyansky, Elizabeth LEGAL REPRESENTATIVE: Lambiris, Elias J.

NUMBER OF CLAIMS: 11
EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 8 Drawing Figure(s); 8 Drawing Page(s)

LINE COUNT: 5582

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to enzyme preparations consisting essentially of an enzyme which has cellulytic activity and comprises a first amino acid sequence consisting of 14 amino acid residues having the following sequence

Thr Arg Xaa Xaa Asp Cys Cys Xaa Xaa Xaa Cys Xaa 1 2 3 4 5 6 7 8 9 10 11 12

Trp Xaa 13 14

and a second amino acid sequence consisting of 5 amino acid residues having the following sequence

wherein, in position 3 of the first sequence, the amino acid is Trp, Tyr or Phe; in position 4 of the first sequence, the amino acid is Trp, Tyr or Phe; in position 8 of the first sequence, the amino acid is Arg, Lys or His, in position 9, 10, 12 and 14, respectively, of the first sequence, and in position 4 of the second sequence, the amino acid is any of the 20 naturally occurring amino acid residues with the provisos that, in the first amino acid sequence, (i) when the amino residue in position 12 is Ser, then the amino acid residue in position 14 is not Ser, and (ii) when the amino residue in position 12 is Gly, then the amino acid residue in position 14 is not Ala, performs very good in industrial applications such as laundry compositions, for biopolishing of newly manufactured textiles, for providing an abraded look of cellulosic fabric or garment, and for treatment of paper pulp. Further, the invention relates to DNA constructs encoding such enzymes, a method for providing a gene encoding for such enzymes, a method of producing the enzymes, enzyme preparations containing such enzymes, and the use of these enzymes for a number of industrial applications.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 36 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2001:121435 USPATFULL << LOGINID::20070228>>

TITLE: Variant EGIII-like cellulase compositions

INVENTOR(S): Mitchinson, Colin, Half Moon Bay, CA, United States

Wendt, Dan J., Walnut Creek, CA, United States

PATENT ASSIGNEE(S): Genencor International, Inc., Palo Alto, CA, United

States (U.S. corporation)

#### NUMBER KIND DATE

PATENT INFORMATION: US 6268328 B1 20010731 APPLICATION INFO.: US 1998-216295 19981218 (9)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Gupta, Yogendra N.

ASSISTANT EXAMINER: Elhilo, Eisa

LEGAL REPRESENTATIVE: Genencor International, Inc.

NUMBER OF CLAIMS: 20 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 7 Drawing Figure(s); 7 Drawing Page(s)

LINE COUNT: 1619

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to novel variant EGIII or EGIII-like cellulases which have improved stability. The variant cellulases have performance sensitive residues replaced to a residue having improved stability.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 37 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2001:67440 USPATFULL << LOGINID::20070228>>

TITLE: Xylanases, genes encoding them, and uses thereof

INVENTOR(S): Paloheimo, Marja, Vantaa, Finland

Hakola, Satu, Perttula, Finland Mantyla, Arja, Helsinki, Finland Vehmaanpera, Jari, Klaukkala, Finland Lantto, Raija, Klaukkala, Finland Lahtinen, Tarja, Vantaa, Finland Fagerstrom, Richard B., Espoo, Finland

PATENT ASSIGNEE(S): Rohn Enzyme Finland OY, Rajamaki, Finland (non-U.S. corporation)

NUMBER KIND DATE

Suominen, Pirkko, Helsinki, Finland

PATENT INFORMATION: US 6228629 B1 20010508

APPLICATION INFO.: US 1996-768373 19961217 (8)

NUMBER DATE

PRIORITY INFORMATION: US 1996-20389P 19960628 (60)

US 1995-8746P 19951218 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: Granted

PRIMARY EXAMINER: Prouty, Rebecca E. ASSISTANT EXAMINER: Rao, Manjunath

LEGAL REPRESENTATIVE: Sterne, Kessler, Goldstein & Fox P.L.L.C.

NUMBER OF CLAIMS: 16 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 14 Drawing Figure(s); 14 Drawing Page(s)

LINE COUNT: 1523

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB DNA encoding novel xylanases, vectors containing such DNA, hosts transformed with such DNA, enzyme preparations, and the use of such preparations are described.

#### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 38 OF 41 USPATFULL on STN

ACCESSION NUMBER: 2001:18266 USPATFULL <<LOGINID::20070228>>

TITLE: Cellulases, the genes encoding them and uses thereof

INVENTOR(S): Miettinen-Oinonen, Arja, Masala, Finland

Londesborough, John, Helsinki, Finland

Vehmaanpera, Jari, Klaukkala, Finland

Haakana, Heli, Rajamaki, Finland

Mantyla, Arja, Helsinki, Finland

Lantto, Raija, Klaukkala, Finland

Elovainio, Minna, Helsinki, Finland

Joutsjoki, Vesa, Helsinki, Finland

Paloheimo, Marja, Vantaa, Finland

Suominen, Pirkko, Helsinki, Finland

PATENT ASSIGNEE(S): Rohm Enzyme Finland OY, Rajamaki, Finland (non-U.S. corporation)

# NUMBER KIND DATE

PATENT INFORMATION: US 6184019 B1 20010206 APPLICATION INFO.: US 1999-329350 19990610 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1997-841636, filed on 30 Apr

1997 Continuation of Ser. No. WO 1996-FI550, filed on

17 Oct 1996 Continuation-in-part of Ser. No. US

1996-732181, filed on 16 Oct 1996

#### NUMBER DATE

PRIORITY INFORMATION: US 1995-5335P 19951017 (60)

US 1995-7926P 19951204 (60)

US 1996-20840P 19960628 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Patterson, Jr., Charles L.

LEGAL REPRESENTATIVE: Sterne, Kessler, Goldstein & Fox P.L.L.C.

NUMBER OF CLAIMS: 44 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 47 Drawing Figure(s); 37 Drawing Page(s)

LINE COUNT: 3192

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Genes encoding novel cellulases, and a gene encoding a protein that facilitates the action of such novel cellulases, the novel cellulases and a protein that facilitates the action of such cellulases, and enzyme preparations containing such proteins are described The native hosts and the culture medium of said hosts containing said novel cellulases are also disclosed. These proteins are especially useful in the textile and detergent industry and in pulp and paper industry.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 39 OF 41 USPATFULL on STN

ACCESSION NUMBER: 1999:163494 USPATFULL << LOGINID::20070228>>

TITLE: Endoglucanases

Schulein, Martin, Copenhagen, Denmark INVENTOR(S):

> Andersen, Lene Nonboe, Aller o slashed d, Denmark Lassen, S.o slashed.ren Flensted, Copenhagen, Denmark

Kauppinen, Markus Sakari, Copenhagen, Denmark

Lange, Lene, Valby, Denmark

Nielsen, Ruby Iium, Farum, Denmark

Ihara, Michiko, Chiba, Japan

Takagi, Shinobu, Chiba, Japan

PATENT ASSIGNEE(S): Novo Nordisk A/S, Bagsvaerd, Denmark (non-U.S.

corporation)

#### NUMBER KIND DATE

PATENT INFORMATION: US 6001639

19991214 19960521 (8)

APPLICATION INFO.: US 1996-651136 RELATED APPLN. INFO.: Continuation of Ser. No. WO 1996-DK105, filed on 18 Mar

#### NUMBER DATE

PRIORITY INFORMATION: DK 1995-272 19950317

DK 1995-885 19950808 DK 1995-886 19950808

DK 1995-887 19950808 DK 1995-888 19950808 DK 1996-137 19960212

DOCUMENT TYPE: Utility

FILE SEGMENT: Granted

PRIMARY EXAMINER:

Carlson, Karen Cochrane ASSISTANT EXAMINER: Slobodyansky, Elizabeth

LEGAL REPRESENTATIVE: Zelson, Esq., Steve T., Gregg, Esq., Valeta

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 8 Drawing Figure(s); 8 Drawing Page(s)

LINE COUNT: 6231

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to enzyme preparations consisting essentially of an enzyme which has cellulytic activity and comprises a first amino acid sequence consisting of 14 amino acid residues having the following sequence

Thr Arg Xaa Xaa Asp Cys Cys Xaa Xaa

(SEQ ID NO:79) 1 2 3 4 5 6 7 8 9

Xaa Cys Xaa Trp Xaa

10 11 12 13 14

and a second amino acid sequence consisting of 5 amino acid residues having the following sequence

Trp Cys Cys Xaa Cys (SEQ ID NO:80)

wherein, in position 3 of the first sequence, the amino acid is Trp. Tyr or Phe; in position 4 of the first sequence, the amino acid is Trp, Tyr or Phe; in position 8 of the first sequence, the amino acid is Arg, Lys or His; in position 9, 10, 12 and 14, respectively, of the first sequence, and in position 4 of the second sequence, the amino acid is any of the 20 naturally occurring amino acid residues with the provisos that, in the first amino acid sequence, (i) when the amino residue in position 12 is Ser, then the amino acid residue in position 14 is not Ser, and (ii) when the amino residue in position 12 is Gly, then the amino acid residue in position 14 is not Ala, performs very good in industrial applications such as laundry compositions, for biopolishing

of newly manufactured textiles, for providing an abraded look of cellulosic fabric or garment, and for treatment of paper pulp. Further, the invention relates to DNA constructs encoding such enzymes, a method for providing a gene encoding for such enzymes, a method of producing the enzymes, enzyme preparations containing such enzymes, and the use of these enzymes for a number of industrial applications.

# CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 40 OF 41 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 1998:388543 CAPLUS << LOGINID::20070228>> 129:64085 DOCUMENT NUMBER: TITLE: The ACEI and ACEII transcription factors of Trichoderma reesei and their use in the expression of foreign genes in Trichoderma INVENTOR(S): Saloheimo, Anu; Aro, Nina; Ilmen, Marja; Penttila, PATENT ASSIGNEE(S): Rohm Enzyme Finland Oy, Finland; Saloheimo, Anu; Aro, Nina; Ilmen, Marja; Penttila, Merja SOURCE: PCT Int. Appl., 99 pp. CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: **English** FAMILY ACC. NUM. COUNT: 3 PATENT INFORMATION: DATE PATENT NO. KIND DATE APPLICATION NO. A1 19980604 WO 1997-FI743 19971201 WO 9823642 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, US, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG A 19980622 AU 1998-51235 19971201 AU 9851235 A1 19991020 EP 1997-945899 EP 950064 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI US 1996-32156P P 19961129 PRIORITY APPLN. INFO.: US 1996-32959P P 19961213 US 1997-40140P P 19970310 WO 1997-FI743 W 19971201 AB A pair of transcription factors, ACEI and ACEII, involved in regulation of the CBHI gene of Trichoderma reesei are identified and the ace1 and ace2 genes encoding them are cloned. The transcription factors and the elements they bind to may be of use in the expression of foreign genes in Trichoderma. CDNAs for these factors were cloned using a yeast reporter gene system to identify clones encoding factors affecting transcription from a promoter of a gene from a filamentous fungus. The proteins encoded by these genes have DNA-binding domains, but do not show any significant sequence similarity to other transcription factors. Expression of the genes in Trichoderma reesei was controlled by the nature and co. 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L11 ANSWER 41 OF 41 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN ACCESSION NUMBER: 1997-341683 [31] WPIDS CROSS REFERENCE: 1997-341682 C1997-109830 [31] DOC. NO. CPI: TITLE: Nucleic acid encoding new xylanase(s) from \*\*\*Chaetomium\*\*\* thermophilum - useful for treating wood pulp, animal feed and flour, e.g. to facilitate bleaching DERWENT CLASS: D11; D13; D16; F09 INVENTOR: FAGERSTROEM R; FAGERSTROEM R B; FAGERSTROM R; HAKOLA S; LAHTINEN T; LANTTO R; MAENTYLAE A; MANTYLA A; PALOHEIMO M; SUOMINEN P; VEHMAANPERA J; VEHMAANPERAE J

PATENT ASSIGNEE: (ENZY-N) ENZYMES AB OY; (PRIM-N) PRIMALCO LTD; (ROHG-C)

# ROEHM ENZYME FINLAND OY

COUNTRY COUNT: 7

#### PATENT INFO ABBR.:

, PATENT NO	KIND DATE	WEEK	LA PG	MAIN IPC
WO 9722692	A1 19970626	(199731)* F	EN 77[10]	
AU 9710996	A 19970714(1	199744) EN	J	
EP 870015	A1 19981014 (1	99845) EN		
US 6228629	B1 20010508 (2	200133) EN	J	
US 6635464	B1 20031021 (2	200370) EN	1	
EP 870015	B1 20040317 (20	00421) EN		
DE 69631899	E 20040422 (2	200428) DI	Ε	
EP 1433843	A2 20040630 (2	200443) EN	1	
ES 2217333	T3 20041101 (2	00474) ES		
	•	•		

# APPLICATION DETAILS:

PATENT NO KIND	APPLICATION DATE
WO 9722692 A1	WO 1996-FI671 19961217
US 6228629 B1 Provisiona	d US 1995-8746P 19951218
US 6635464 B1 Provisiona	d US 1995-8746P 19951218
US 6228629 B1 Provisiona	d US 1996-20389P 19960628
US 6635464 B1 Provisiona	US 1996-20839P 19960628
DE 69631899 E	DE 1996-69631899 19961217
EP 870015 A1	EP 1996-941682 19961217
EP 870015 B1	EP 1996-941682 19961217
DE 69631899 E	EP 1996-941682 19961217
EP 1433843 A2 Div Ex	EP 1996-941682 19961217
ES 2217333 T3	EP 1996-941682 19961217
US 6228629 B1	US 1996-768373 19961217
US 6635464 B1 Div Ex	US 1996-768373 19961217
EP 870015 A1	WO 1996-FI671 19961217
EP 870015 B1	WO 1996-FI671 19961217
DE 69631899 E	WO 1996-FI671 19961217
AU 9710996 A	AU 1997-10996 19961217
US 6635464 B1	US 2001-849242 20010507
EP 870015 B1 Related to	EP 2003-27255 19961217
EP 1433843 A2	EP 2003-27255 19961217

# FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69631899 E	Based on	EP 870015 A
EP 1433843 A2	Div ex	EP 870015 A
ES 2217333 T3	Based on	EP 870015 A
US 6635464 B1	Div ex	US 6228629 B
AU 9710996 A	Based on	WO 9722692 A
EP 870015 A1	Based on	WO 9722692 A
EP 870015 B1	Based on	WO 9722692 A
DE 69631899 E	Based on	WO 9722692 A

# PRIORITY APPLN. INFO: US 1996-20839P 19960628

US 1995-8746P 19951218

US 1996-20389P 19960628

US 1996-768373 19961217

US 2001-849242 20010507

AN 1997-341683 [31] WPIDS

CR 1997-341682

AB WO 1997022692 A1 UPAB: 20060113

Nucleic acid (A) encoding a polypeptide (I) with xylanase activity (a) encodes a 261, 230 or 224 amino acid (aa) protein (sequences given in the specification, together with the 1281, 1174 and 1142 bp sequences encoding them, deposited in plasmids as DSM 11021, 11022 and 11023, respectively); (b) contains the coding region of the sequences specified in (a); (c) is any sequence equivalent to (a) or (b) within the degeneracy of the genetic code; or (d) any sequence that hybridises with (a)-(c) and encodes a

xylanase with aa identity at least 80% with the 3 proteins specified in (a).

USE - (I) are used to degrade xylan-containing substrates, specifically to treat wood pulp or fibre, particularly to assist bleaching of chemical or mechanical pulp but also in debarking logs, refining wood to reduce the energy demands in pulping, to increase external fibrillation and improve fibre swelling, and to improve pulp draining and/or reduce water retention; to improve quality of animal feeds (increasing growth rate and feed utilisation) or in baking (added to the flour to improve dough and bread characteristics such as loaf volume and texture). (A) is used to produce recombinant (I).

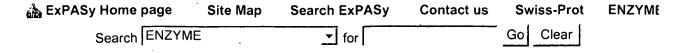
ADVANTAGE - Treatment of pulp with (I) facilitates removal of lignin, reducing the amount of bleaching chemicals needed and generating a product of increased brightness. (I) do not affect cellulose so product strength is not adversely affected. (I) can be used directly from the culture broth (no purification needed), has maximum activity at 60.degree.C or over and is active even at neutral or slightly alkaline pH.

=> d his

# L1 QUE CELLOBIOHYDROLASE###

- L2 7559 S L1
- L3 1619 S (GENE OR SEQUENCE OR POLYNUCLEOTIDE)(S)L2
- L4 847 S (CLONE OR RECOMBINANT OR EXPRESS?)(S) L3
- L5 56 S (MUTANT OR VARIANT)(S) L4
- L6 0 S CHAETOMIUM(S) L5
- L7 8 S CHAETOMIUM AND L5
- L8 43 S CHAETOMIUM AND L4
- L9 51 S THERMOPHILUM AND L4
- L10 48 DUP REM L9 (3 DUPLICATES REMOVED)
- L11 41 DUP REM L8 (2 DUPLICATES REMOVED)

=> log y



# NiceZyme View of ENZYME: EC 3.2.1.91

Official Name

Cellulose 1,4-beta-cellobiosidase.

Alternative Name(s)

1,4-beta-cellobiohydrolase.

Exocellobiohydrolase.

Exoglucanase.

Reaction catalysed

Hydrolysis of 1,4-beta-D-glucosidic linkages in cellulose and cellotetraose, releasing cellobiose from the non-reducing ends of the chains

Cross-references

Biochemical

Pathways; map

**A4** 

number(s)

PROSITE

PDOC00510; PDOC00563; PDOC00565

**BRENDA** 

3.2.1.91

PUMA2

3.2.1.91

PRIAM enzyme-

specific profiles

3.2.1.91

**KEGG Ligand** 

Database for

Enzyme

3.2.1.91

Nomenclature

IUBMB Enzyme

Nomenclature

3.2.1.91

IntEnz

3.2.1.91

MEDLINE

Find literature relating to 3.2.1.91

MetaCyc

3.2.1.91

UniProtKB/Swiss-

Prot

P38676, GUX1B\_NEUCR; Q00328, GUX1\_COCCA; O59843, GUX1\_ASPAC; Q00548, GUX1\_CRYPA; P15828, GUX1\_HUMGT; Q06886, GUX1\_PENJA; P13860, GUX1\_PHACH; P62695, GUX1\_TRIKO; Q9P8P3, GUX1\_TRIHA; P62694, GUX1\_TRIRE; P19355, GUX1\_TRIVI; Q92400, GUX2\_AGABI;

P10474, GUNB\_CALSA;

P50900, GUX2\_CLOSR; Q9C1S9, GUX6\_HUMIN;

O68438, CELK\_CLOTM;

P07987, GUX2\_TRIRE; P50401, GUXA\_CELFI;

P49075, GUX3\_AGABI;

P50899, GUXB\_CELFI;

Q7SA23, GUX1A\_NEUCR.